

VIII.—Notes upon the Sika-Deer of North China.

By ARTHUR DE CARLE SOWERBY, F.Z.S., F.R.G.S.

THE opportunity has recently been afforded me of examining a fully adult Sika stag, shot by Mr. J. Holmberg, of Tientsin, in the Fen-chou Fu district of West Shansi, during December 1916.

Previous to this, I believe, no complete specimen of this animal has ever been secured by a European; while, as far as I know, the only reference to it in any publication is that by Père Heude in his 'Mémoires concernant l'Histoire Naturelle de l'Empire Chinois' (tome iv. p. 210, pl. xxxvii. fig. 13), wherein he names the species *Cervus grassianus*, from a single pair of antlers from Tching-lo-hsien (Tsing-lo Hsien), Shansi. In a paper written by me on Père Heude's collection of pigs, sika, serows, and gorals in the Sikawei Museum, Shanghai, and published in the 'Proceedings of the Zoological Society of London,' April 1917, pp. 7-26, I suggested that the Shansi sika should be classed for the time being with Milne-Edwards's *Cervus mandarinus*, though I stated then that winter skins that I had seen were lighter in colour than the figure given by Milne-Edwards.

The stag which Mr. Holmberg so kindly allowed me to examine is, however, fully as dark as Milne-Edwards's winter figure, though in this connection it is interesting to note that Mr. Holmberg states that the hinds and young that he saw with the stag were very much lighter. This agrees with my own observations. I have had no opportunity of determining whether or not the hinds and young of the Chihli sika are lighter than the stags; but as a result of my examination of Mr. Holmberg's specimen I do not hesitate to confirm Père Heude's separation of the Shansi sika from the other Chinese forms, and, although he gave no description, the fact that he gives a figure of a pair of antlers from Tsing-lo Hsien, West Shansi, makes his name hold good. Following is a diagnosis and description of the species:—

Cervus grassianus, Heude.

Cervus grassianus Heude, 'Mémoires concernant l'Histoire Naturelle de l'Empire Chinois,' tome iv. p. 210, pl. xxxvii. fig. 13.

A single fully adult male in winter pelage examined, also two winter skins of fully adult females, and a summer skin of a male, as well as two fully developed pairs of antlers, all from West Shansi.

♂ complete, from mountains 100 miles S.W. of Fen-chou Fu, Shansi, N. China.

Measurements in the flesh:—Head and body 60", height at shoulders 42", tail 8", hind foot $16\frac{1}{2}$ ", ear 7". Weight 165 catties = 220 lbs. (about).

Colour. A general greyish brown on the head, going into brown on the forehead and a pale buff at the base of the horns and the base and backs of the ears, the inside of the ears being white. Nose dark brown; chin dark brown, almost black, with a small white patch on either side. Area round the eye buffy-grey. The general colour gets darker on the neck, but it still retains a wash of buff or ochre. The body is dark greyish brown, with a slight indication of a darker median dorsal line. The spots are almost invisible, showing up in certain lights and quite invisible in others. The dark greyish brown of the body shades into a rich brown on the back and lower portions of the legs, getting lighter and more ochraceous on the fetlocks. There is a peculiar patch of long white hairs surrounded by black on the outer surface of the hind leg about 6 inches below the heel. The tail is black above, white beneath, the hairs being long and making the tail somewhat bushy. The croup disk is white, edged with black on its upper half, the black joining up with that of the upper tail surface, so that there is no white between the tail and the back. The under surface of the belly and inner surface of thighs are white; the chest is a dark brownish grey.

The hairs of the neck are considerably longer than on the rest of the body.

Horns. The horns in this specimen are not very well developed, being past their prime. They measure:—

Right, $19\frac{1}{2}$ " in length.

Left, $19\frac{3}{4}$ " "

Right, above the brow-tine $3\frac{5}{8}$ " in circumference, below $5\frac{7}{8}$ ".

Eight points, 4+4.

Other horns examined are large, graceful, and heavy, but not so large as is usual in *C. mandarinus*.

Skull. Condyllo-basal length 322 mm.; zygomatic width 136 mm.; interorbital space 100 mm.; length of nasals 125 mm.; greatest width of palate (at post-molar) 54 mm.; greatest width of cranium $8\frac{1}{4}$ mm.; length of upper tooth-row 99 mm.; length of lower tooth-row 103 mm. Teeth well worn.

Type. A pair of antlers in the Sikawei Museum, Shanghai, no number, from Tching-lo-hsien (Tsing-lo Hsien), Shansi.

The habitat of this species may be considered as confined to the forested and mountainous areas of that part of Shansi

that lies west of the Fen Ho. Even here it occurs only in a few isolated districts, namely:—

1. The forest to the south of Ning-wu Fu, west of Tsing-lo Hsien and north of Ko-lan Chou, where Heude's specimen was doubtless secured.

2. In the forested area 90 miles west of Tai-yuan Fu, known as the Chiao-ch'êng Shan.

3. In the forested area 100 miles south-west of Fen-chou Fu, known as the Ning-hsiang Hsien mountains.

Formerly its range extended throughout the whole of the mountainous area of West Shansi, as well as in the mountains that extend in a north and south line between Shansi and Chihli; but it has been almost exterminated by native hunters for the sake of its horns, which are highly valued as medicine. Only a few isolated herds occur in the districts above mentioned, where they keep to the densest parts of the forest. Even so, they are being steadily exterminated.

This sika ruts in November and December, sheds its horns about March, the new growth commencing about the end of July. It is during August and September that this species is most sedulously hunted by the natives, for then the horns are considered to be in their prime.

Following is a diagnosis of the sika occurring in the Chihli forests:—

Cervus mandarinus, Milne-Edwards.

Cervus mandarinus Milne-Edwards, 'Recherches pour servir à l'Histoire Naturelle de Mammifères,' vol. i. (text), pp. 184-186, vol. ii. pls. xxii. et xxii.A.

This sika differs from *C. mantchuricus*, Sw., in having the white spots larger and fewer in number, in being generally lighter in colour, with less white on the croup disk, and in having the parts below the belly the same colour as the flanks, instead of white. The differences in the winter pelage are not so marked.

Milne-Edwards states that the spots in *C. mantchuricus* in the winter pelage are so invisible as not to have been given in Selater's figures. (In this it resembles the Shansi stag.)

In *C. mandarinus*, in spite of the general darkening of the pelage, the spots remain plainly visible.

In a letter published in the P. Z. S. 1865, No. 1, p. 142, Swinhoe retains the name *mantchuricus* for the Manchurian sika, having examined a living specimen at New-chwang in South Manchuria. He makes the statement that he suspects it to be the same as the deer, skins of which he secured in the Summer Palace, and which Blyth called *mantchuricus*

(P. Z. S. 1864, p. 109), but which Swinhoe himself subsequently called *hortulorum* (P. Z. S. 1865, p. 1).

As there is no telling where the deer confined in the Summer Palace came from originally, it being just as likely that they were brought from Manchuria as from the Imperial Hunting Grounds, owing to the fact that part of the tribute annually paid to the Imperial Manchu household from Manchuria consisted of game of various kinds, and since Milne-Edwards finds the Chihli species so distinct from the Manchurian form, it seems more than likely that Swinhoe's surmise as regards the common identity of his skins from the Summer Palace and his New-chwang specimen was correct; in which case his name *hortulorum* applying to the Manchurian sika is later than his name *mantchuricus*, and so becomes a synonym, thus leaving Milne-Edwards's name *mandarinus* clear for the Chihli specimen.

This species occurs in a wild state only in the Imperial Hunting Grounds, north of the famous Tung Ling (Eastern Tombs), and in the Wei-ch'ang to the north of Jehol, both in Chihli province, to the north and north-east of Peking. It occurs in a semi-domesticated state in the magnificent park at Jehol.

Up to recent times this deer has been strictly preserved, but in 1911-12 the Manchu soldiers that were sent out of Peking and were camped in the Eastern Tombs and Imperial Hunting Grounds were allowed to kill as many as they liked, while since that date native hunters have been allowed to hunt in these districts, with the result that in the wild state the species is practically extinct.

It may here be stated that unless immediate and very stringent steps are taken for their protection, both *C. grassianus* and *C. mandarinus* will become extinct, and the sika no longer remain on the list of North China mammals.

IX.—*Descriptions of new Genera and a new Subspecies of South American Birds.* By CHARLES CHUBB, F.Z.S., M.B.O.U.

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PSEUDOCONOPHAGA, gen. nov.

The proposed new genus, which is based on *Conopophaga melanogaster*, Menetr., is distinguished from *Conopophaga*, founded on *Turdus auritus*, Gmel., by its long and narrow bill, the long tarsi and toes, the larger size, and different coloration.

Type, *P. melanogaster* (Menetr.).